Lava Beds National Monument

Unit 3 – Activity B: Limiting Factors to Habitat

OBJECTIVES:

Students will interpret the significance of loss or change in habitat in terms of people and wildlife.

MATERIALS:

You will need to provide

• A large space for activity

SUBJECTS:

Life Science

METHOD:

- 1. Tell students that food, water and shelter arranged to meet an animals' needs is called "habitat." A place where humans can get everything they need is called a habitat too. If any of the components of habitat are missing or are significantly affected the area is no longer suitable to live in. There are additional limiting factors beyond food, water, shelter, and space. For example: disease, predation, pollution, and climatic conditions, all of these can affect an animal's survival.
- 2. Gather students into an area in which they all can stand in a large circle. Ask the students to turn to their right at the same time taking one step toward the center of the circle. They should be standing close together, with each student looking at the back of the head of the student in front of him or her.
- 3. Ask everyone to listen carefully. Students should place their hands on the shoulders of the person in front of them. At the count of three, ask the students to sit down slowly on the knees of the person behind them, keeping their own knees together to support the person in front of them. As the students are sitting say, "Food, water and shelter in the proper arrangement are needed to have suitable habitat". The proper arrangement is illustrated by all students successfully completing the circle lap sit.
- 4. The students at this point may either carefully fall or sit down.
- 5. Have students get up and arrange themselves again, forming a large circle, standing shoulder to shoulder, turn to right, take one step inward, looking at the back of another student's head. Have each student say a component of habitat; water, food, shelter, water, food, shelter, water et cetera until each student in circle has named a component. Identify two random students that are water, this time explain to students "There is a drought in Lava Beds and bats have fewer places to drink."
- 6. Have two students who represent water remove themselves from the circle. At this point, the students will either fall over or some sort of disruption will occur. Discuss how having less water in Lava Beds can cause disruptions for bats.

7. Other ways you can illustrate varying conditions could be to remove a couple students, therefore a critical habitat component from the circle because of: pollution of water supply (if people were to swim in the water in Heppe Cave). Another example you could limiting factor could be disease. You can illustrate this by describing the disease and then removing a few students that are shelter. The caves that have infected bats have a high mortality rate.